13. A computing device according to claim **8**, wherein a client executing on the computing device updates the content of a file by directing write operations to the virtual volume, wherein the write operations do not pass through the filesystem module, and wherein the file is managed by the filesystem during the write operations.

14. A computing device according to claim **13**, wherein the client exposes the virtual volume as a virtual block-based storage device.

15. A computing device according to claim **8**, wherein the filesystem module manages the storage device to ensure sufficient capacity to perform operations for specific volumes.

16. A method performed by a computing device, the method comprising:

storing a first part of a filesystem file in a filesystem volume managed by a filesystem module, the file system volume stored on a storage device, and storing a second part of the filesystem file in a virtual volume, wherein the virtual volume is not part of the filesystem volume, wherein the storage device manages the virtual volume, and wherein accesses to the second part of the file do not pass through indirection logic of the filesystem module.

17. A method according to claim **16**, wherein a client executing on the computing device addresses reads and writes to device blocks of the virtual volume to provide a virtual disk drive, the virtual disk drive comprising a block-based virtual storage device.

18. A method according to claim **16**, further comprising storing virtual blocks in device blocks of the virtual volume by aligning the virtual blocks with the device blocks.

19. A method according to claim **16**, further comprising enabling access to the first part of the file through the filesystem module while disallowing access to the second part of the file through the filesystem module.

20. A method according to claim **15**, further comprising storing a differencing virtual volume on the storage device, the differencing virtual volume linked to the virtual volume, wherein after the differencing virtual volume is linked to the virtual volume, updates to the virtual volume are stored in the differencing virtual volume.

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